

FIG. 1

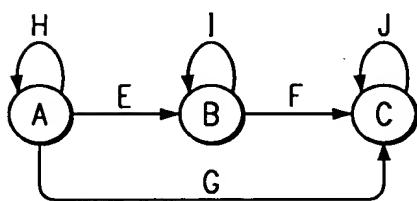


FIG. 2

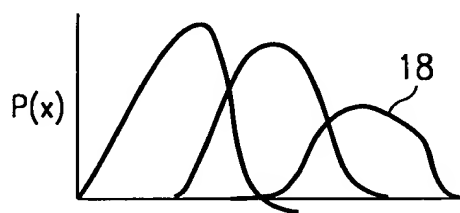


FIG. 3

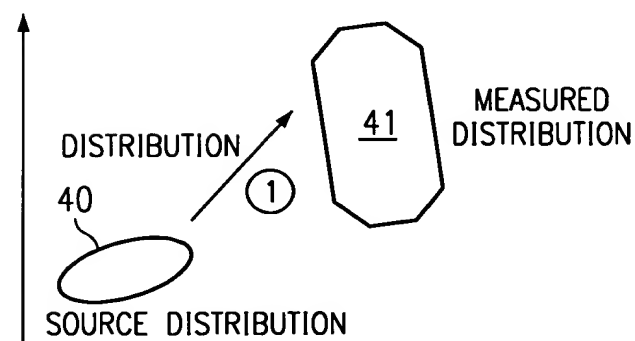


FIG. 4

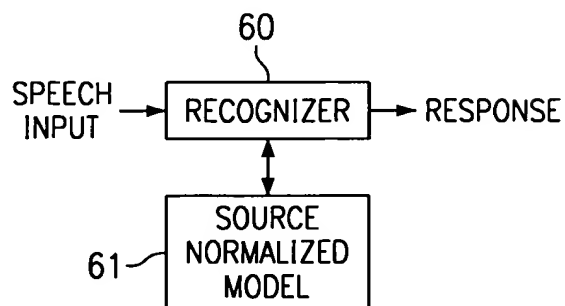


FIG. 6

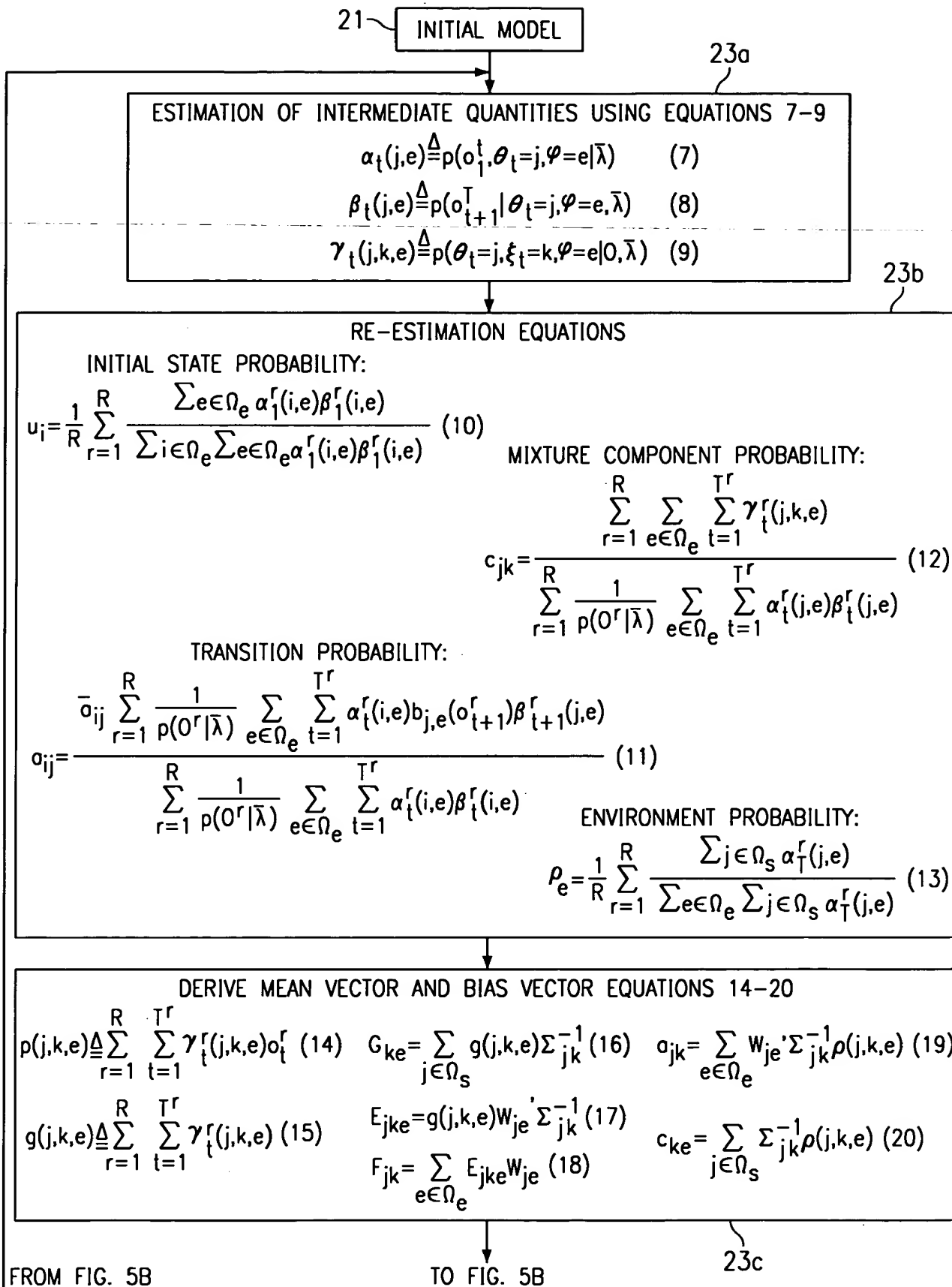


FIG. 5A

TO FIG. 5A

FROM FIG. 5A

23d

SOLVE JOINTLY FOR MEAN VECTORS AND BIAS VECTORS USING LINEAR EQUATIONS 21 AND 22

$$\sum_{e \in \Omega_e} E_{jke} b_{ke} + F_{jk} \mu_{jk} = a_{jk} \quad \forall j \in \Omega_e \quad (21)$$

$$G_{ke} b_{ke} + \sum_{j \in \Omega_s} H_{jke} \mu_{jk} = c_{ke} \quad \forall e \in \Omega_e \quad (22)$$

AND DETERMINE COVARIANCES USING EQUATION 23

$$\Sigma_{jk} = \frac{\sum_{e \in \Omega_e} \sum_{r=1}^R \sum_{t=1}^{T^r} \gamma_t^r(j,k,e) \delta_t^r(j,k,e) \delta_t^r(j,e,k)'}{\sum_{e \in \Omega_e} g(j,k,e)} \quad (23)$$

AND TRANSFORMATION USING EQUATIONS 24, 24, AND 26

$$Z_{je}^{(m)} = W_{je}^{(m)} R_{je}^{(m)} \quad (24)$$

$$Z_{je}^{(m,n)} \triangleq \sum_{k \in \Omega_m} \Sigma_{jk}^{-1(m,m)} \mu_{jk}^{(n)} \sum_{r=1}^R \sum_{t=1}^{T^r} \gamma_t^r(j,k,e) (o_t^r - b_{ke})^{(m)} \quad (25)$$

$$R_{je}^{(p,n)}(m) \triangleq \sum_{k \in \Omega_m} \Sigma_{jk}^{-1(m,m)} \mu_{jk}^{(p)} \mu_{jk}^{(n)} \sum_{r=1}^R \sum_{t=1}^{T^r} \gamma_t^r(j,k,e) \quad (26)$$

REPLACE OLD MODEL PARAMETERS FOR THE CALCULATED ONES 24

YES

NEW MODEL 25

CHANGE? 27

YES

NO

END

FIG. 5B